Dragon Eye Unmanned Aerial Vehicle (UAV)

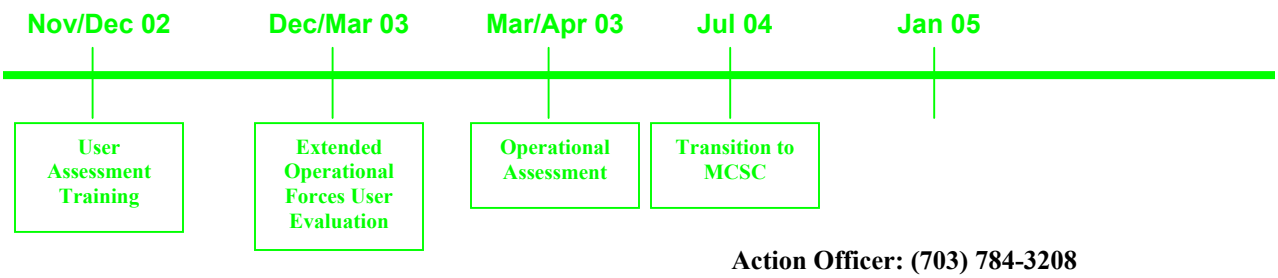
Purpose: The Dragon Eye (DE) UAV, a combined project of the Marine Corps Warfighting Laboratory (MCWL), and the Marine Corps Systems Command (MCSC), is a backpackable system with interchangeable modular payloads, designed to provide the small unit leader an over-the-hill reconnaissance capability.

Background: The impetus for the project came from the Secretary of the Navy's Over-the-Hill Reconnaissance initiative, and the Interim Small Unit Remote Scouting System requirement. This UAV is intended to support Marine Corps Systems Command (MCSC) to develop a prototype lightweight, backpackable UAV capable of providing real time day/night video imagery. The MCSC, Program Manager Scouting Systems is the office of record and the Interim Small Unit Remote Sensor System (ISURSS) is a sub-requirement of the Tactical Remote Sensor Suite Operational Requirements Document (ORD).

Description: Dragon Eye is a 4.5-pound, battery-powered, modular UAV capable of fully autonomous flight. Made of lightweight Kevlar material, this system is designed to disassemble into five separate pieces, and carried in an individual Marine's ALICE pack. Missions are programmed via a wireless modem that is integrated into a ten-pound ground control station. After being hand launched, DE flies to pre-assigned GPS waypoints via an onboard autopilot, which has the ability to be reprogrammed in flight. Its sensors include full motion color, low light black and white, and infrared cameras, each having the capability to transmit a video line of sight to a range of ten kilometers. Dragon Eye flies up to speeds of 45 knots, and has a battery endurance of 60 minutes. Ten Dragon Eye prototypes will be provided to I MEF for evaluation, and tactics, techniques and procedures development. Data gathered from this operational assessment will be used to update the ORD and system specifications prior to the production request for proposal release.

Deliverable Product(s): Prototypes and assessment based on operational experimentation.

Milestones:



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